UNITED STATES PATENT AND TRADEMARK OFFICE

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10/773,298	02/09/2004	Seung-Mi Kang	P56973	8751

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *07 December 2007*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-7 and 9-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-7 and 9-20* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *09 February 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is responsive to amendment of application No. 10/773,298 filed

on 12/07/2007. **Claim 8** has been cancelled. **Claims 1-7 and 9-20** are pending and

have been examined.

Response to Arguments

2.   Applicant's arguments with respect to **claims 1-20** have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   **Claims 1-4, 6, 7, 10, 12, 14, 16, 17, 19, and 20** are rejected under 35 U.S.C.

103(a) as being unpatentable over ISO/IEC 13818-6 (First edition 1998-09-01), in view

of JERDING et al. (2006/0206913), and further in view of Goffin, II (US 6,918,135).

Consider **claim 1**, ISO/IEC 13818-6 teaches a method for controlling

network digital broadcasting service (P. xix {0. Introduction}, 2nd paragraph,

Described further in detail in Clause 4), comprising steps of:

directly requesting, at a client, a SRM (Session Resource Manager) for a

session connection, and establishing a session by receiving a confirmation

message for the session connection from the SRM ("Network" referred to here

refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4 relates to User to

Network Session Messages as stated in the contents on P. iii. P. 76 Step 1

teaches "the Client shall send ClientSessionSetUpRequest to the Network..." to

establish a new session connection. P. 78 Steps 7-8 teaches the client receiving

a ClientSessionSetUpConfirm message from the SRM establishing the session

connection. As seen on Fig. 4-6, the client is directly sending and receiving

messages from the SRM); and

directly requesting, at the client, the digital broadcasting server for a

channel change, and changing a channel by receiving a confirmation message

for confirming the channel change from the digital broadcasting server (P. 492-

495 teaches a client directly requesting a broadcast program from the SDB

Server. A SDBProgramSelectRequest is generated by the client and sent to the

SDB Server for requesting a channel change. A SDBProgramSelectConfirm

from the SDB Server is received by the client allowing the client to receive the

requested Broadcast Program),

wherein a message for requesting the channel change and the

confirmation message for confirming the channel change each include a DSM-

CC (Digital Storage Media-Command and Control) message header field (P.

492-493; Fig. H-4. protocolDiscriminator, dsmccType, messageId, transcationId,

reserved, adaptationLength, messageLength make up a DSM-CC message

header field as taught in clause 2 on p. 7, which are all present in both messages

for channel change and confirmation. P.291 Sections 10.1.2-10.2), the message

for requesting the channel change is a ProgramSelectRequest message

including: a DSM-CC (Digital Storage Media-Command and Control) message

header field (P. 492-493; Fig. H-4. protocolDiscriminator, dsmccType,

messageId, transcationId, reserved, adaptationLength, messageLength make up

a DSM-CC message header field as taught in clause 2 on p. 7, which are all

present in both messages for channel change and confirmation. P.291 Sections

10.1.2-10.2), a Session ID (Identification) field, a broadcast ProgramId field, and

the ProgramSelectRequest message is transmitted from the client to the digital

broadcasting server (Table 10-5, P.293 Section 10.2.3.1).

ISO/IEC 13818-6 does not teach that the SRM (Session Resource

Manager) can also reside at the digital broadcaster server,

the ProgramSelectRequest message includes a STB (Set Top Box) status

field, and a Client ID field.

In an analogous art JERDING teaches session setup and controlling video

distribution between server and client. JERDING also teaches a SRM (Session

Resource Manager) that resides at the digital broadcaster server (cable

headend) (Fig. 2, Paragraph 0037 teaches where both the MOD application

server 19 and the digital network control system {DNCS, SRM} are both located

at the cable television headend 11).

Therefore, it would have been obvious to a person of ordinary skill in the

art to modify the system of ISO/IEC 13818-6 to include the SRM at the cable

headend, as taught by JERDING, for the advantage of providing the cable

service providers with greater control and manageability over the broadcasting infrastructure.

ISO/IEC 13818-6 and JERDING teaches a ProgramSelectRequest message (ISO/IEC 13818-6 – P.293 Section 10.2.3.1), but do not explicitly teach the message includes a STB (Set Top Box) status field, and a Client ID field.

In an analogous art Goffin teaches, a channel request message includes a STB (Set Top Box) status field, and a Client ID field (Col 3: lines 49-61, Col 4: lines 49-51 teaches transmission of video from a headend and a data router 202 that facilitates headend communications with the client device. Col 5: lines 34-44 and Col 6: lines 14-24 teaches that the data router 202, receives both the STB status and client ID from the client device).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6 and JERDING to include a STB (Set Top Box) status field, and a Client ID field with the channel change request message, as taught by Goffin, for the advantage of notifying the server of the state and requests of the STB, and also allowing the server to easily and readily determine the source of the message.

Consider **claim 17**, ISO/IEC 13818-6 teaches a system controlling a network digital broadcasting service (P. xx Fig. 0-1, sP. xix {0. Introduction}, 2nd paragraph, Described further in detail in Clause 4) comprises:

a client and a SRM (Session Resource Manager), the client directly

requesting the SRM (Session Resource Manager) for a session connection, and

establishing a session by receiving a confirmation message for the session

connection from the SRM (Session Resource Manager) ("Network" referred to

here refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4 relates to User

to Network Session Messages as stated in the contents on P. iii. P. 76 Step 1

teaches "the Client shall send ClientSessionSetUpRequest to the Network…" to

establish a new session connection. P. 78 Steps 7-8 teaches the client receiving

a ClientSessionSetUpConfirm message from the SRM establishing the session

connection. As seen on Fig. 4-6, the client is directly sending and receiving

messages from the SRM); and

the client directly requesting a program change from the digital

broadcasting server and receiving a confirmation message from the digital

broadcasting server, when the digital broadcasting server confirms the program

change (P. 492-495 teaches a client directly requesting a broadcast program

from the SDB Server. A SDBProgramSelectRequest is generated by the client

and sent to the SDB Server for requesting a channel change. A

SDBProgramSelectConfirm from the SDB Server is received by the client

allowing the client to receive the requested Broadcast Program),

wherein a message for requesting the channel change and the

confirmation message for confirming the channel change each include a DSM-

CC (Digital Storage Media-Command and Control) message header field (P.

492-493; Fig. H-4. protocolDiscriminator, dsmccType, messageId, transcationId, reserved, adaptationLength, messageLength make up a DSM-CC message header field as taught in clause 2 on p. 7, which are all present in both messages for channel change and confirmation), the message for requesting the channel change is a ProgramSelectRequest message including: a DSM-CC (Digital Storage Media-Command and Control) message header field (P. 492-493; Fig. H-4. protocolDiscriminator, dsmccType, messageId, transcationId, reserved, adaptationLength, messageLength make up a DSM-CC message header field as taught in clause 2 on p. 7, which are all present in both messages for channel change and confirmation. P.291 Sections 10.1.2-10.2), a Session ID (Identification) field, a broadcast ProgramId field, and the ProgramSelectRequest message is transmitted from the client to the digital broadcasting server (Table 10-5, P.293 Section 10.2.3.1).

ISO/IEC 13818-6 does not explicitly teach that the SRM (Session Resource Manager) can also reside at the digital broadcaster server,

the ProgramSelectRequest message includes a STB (Set Top Box) status field, and a Client ID field.

In an analogous art JERDING teaches session setup and controlling video distribution between server and client. JERDING also teaches a SRM (Session Resource Manager) that resides at the digital broadcaster server (cable headend) (Fig. 2, Paragraph 0037 teaches where both the MOD application

server 19 and the digital network control system {DNCS, SRM} are both located at the cable television headend 11).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6 to include the SRM at the cable headend, as taught by JERDING, for the advantage of providing the cable service providers with greater control and manageability over the broadcasting infrastructure.

ISO/IEC 13818-6 and JERDING teaches a ProgramSelectRequest message (ISO/IEC 13818-6 – P.293 Section 10.2.3.1), but do not explicitly teach the message includes a STB (Set Top Box) status field, and a Client ID field.

In an analogous art Goffin teaches, a channel request message includes a STB (Set Top Box) status field, and a Client ID field (Col 3: lines 49-61, Col 4: lines 49-51 teaches transmission of video from a headend and a data router 202 that facilitates headend communications with the client device. Col 5: lines 34-44 and Col 6: lines 14-24 teaches that the data router 202, receives both the STB status and client ID from the client device).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6 and JERDING to include a STB (Set Top Box) status field, and a Client ID field with the channel change request message, as taught by Goffin, for the advantage of notifying the server of the state and requests of the STB, and also allowing the server to easily and readily determine the source of the message.

Consider.**claim 2,** ISO/IEC 13818-6, JERDING, and Goffin teach

receiving, at the client, a message for checking a status of the client from the

digital broadcasting server, and directly delivering a confirmation message for

checking the status of the client to the digital broadcasting server (ISO/IEC

13818-6 - P.90-91 teaches that the client can receive a ClientStatusIndication

message sent from the SRM which requests information. The client in turn

sends back a ClientStatusResponse containing the information that was

requested. Referring back to Table 4-16 on P.56, many different statusType

fields can be used for specifying what type of status is requested including the

status of the client. JERDING - Paragraph 0037 teaches that the SRM can be

located at the cable headend {digital broadcasting server}).

Consider **claim 3,** ISO/IEC 13818-6, JERDING, and Goffin teach directly

requesting, at the client, the digital broadcasting server for a session termination

and terminating a session by receiving a confirmation message for the session

termination from the digital broadcasting server (ISO/IEC 13818-6 - "Network"

referred to here refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4

relates to User to Network Session Messages as stated in the contents on P. iii.

P. 81-82 teaches a client initiating a release request. Step 1 teaches the client

directly sending a ClientSessionReleaseRequest message to the SRM for

releasing an existing session. Step 4-5 teaches receiving a

ClientSessionReleaseConfirm message from the SRM terminating the session.

JERDING·- Paragraph 0037 teaches that the SRM can be located at the cable

headend {digital broadcasting server}).

Consider **claim 4,** ISO/IEC 13818-6, JERDING, and Goffin teach directly

requesting, at the digital broadcasting server, the client for a session termination

and terminating a session by receiving a confirmation message for the session

termination from the client (ISO/IEC 13818-6 - P. 87 – 88, step 2 teaches

sending a ClientSessionReleaseIndication to the client for releasing an existing

session. The SRM receives the ClientSessionReleaseResponse from the client

and releases all the resources assigned to the session terminating the session

for the client. JERDING - Paragraph 0037 teaches that the SRM can be located

at the cable headend {digital broadcasting server}).

Consider **claim 6,** ISO/IEC 13818-6, JERDING, and Goffin teach teaches

wherein a protocol between the client and the digital broadcasting server is a

TCP/IP (Transmission Control Protocol/Internet Protocol) (ISO/IEC 13818-6 - P.

xxv teaches that the transport layer in Fig. 0-3 on P. xxiv may consist of any

protocol including TCP over IP. P. 291 also teaches that Switched Digital

Broadcast (SDB) Channel Change Protocol (CCP) can be carried on top of

various protocols including IP where their constraints are further defined in

clause 9, allowing for the use of TCP over IP).

Consider **claim 7**, ISO/IEC 13818-6, JERDING, and Goffin teach wherein

a message for requesting the session connection is a SessionSetupRequest

message including: a DSM-CC (Digital Storage Media-Command and Control)

message header field, a Session ID (Identification) field, a Reserved field, a

Client ID field, and a Server ID field, (ISO/IEC 13818-6 - 4.2.4.1 on P. 25-26, and

Table 4-8) and the SessionSetupRequest message is transmitted from the client

to the digital broadcasting server (ISO/IEC 13818-6 - "Network" referred to here

refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4 relates to User to

Network Session Messages as stated in the contents on P. iii. P. 76 Step 1

teaches "the Client shall send ClientSessionSetUpRequest to the Network..." to

establish a new session connection. As seen on Fig. 4-6, the client is sending

and receiving messages from the SRM. JERDING - Paragraph 0037 teaches

that the SRM can be located at the cable headend {digital broadcasting server}).

Consider **claim 10**, ISO/IEC 13818-6, JERDING, and Goffin teach

wherein a message for requesting a session termination is a

ClientReleaseRequest message including: a DSM-CC (Digital Storage Media-

Command and Control) message header field, a session ID field, a Reason field

(ISO/IEC 13818-6 - P.28 Section 4.2.5.1), and the ClientReleaseRequest

message is transmitted from the client to the digital broadcasting server (ISO/IEC

13818-6 - "Network" referred to here refers to "SRM" as shown in Fig. 0-1 on

P.xx, since clause 4 relates to User to Network Session Messages as stated in the contents on P. iii. P.28 Section 4.2.5.1 teaches the client sending a ClientSessionReleaseRequest {ClientReleaseRequest} message to the SRM. As seen on Fig. 4-7 - P.81, the client is sending and receiving messages from the SRM. JERDING - Paragraph 0037 teaches that the SRM can be located at the cable headend {digital broadcasting server}), but do not explicitly teach a ClientID field.

Goffin further teaches a ClientID field (Col 3: lines 49-61, Col 4: lines 49-51 teaches transmission of video from a headend and a data router 202 that facilitates headend communications with the client device. Col 5: lines 34-44 and Col 6: lines 14-24 teaches that the data router 202, receives client ID from the client device).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6, JERDING, and Goffin to include a Client ID field, as further taught by Goffin, for the advantage of allowing the server to easily and readily determine the source of the message.

Consider **claim 12,** ISO/IEC 13818-6, JERDING, and Goffin teach wherein the confirmation message for confirming the session connection is a SessionSetupConfirm message including: a DSM-CC (Digital Storage Media-Command and Control) message header field, a Session ID (Identification) field, a response field, and a Server ID field (ISO/IEC 13818-6 - 4.2.4.2 on P 26-27,

and Table 4-9), and the SessionSetupConfirm message is transmitted from the

digital broadcasting server to the client (ISO/IEC 13818-6 - "Network" referred to

here refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4 relates to User

to Network Session Messages as stated in the contents on P. iii. P. 78 Steps 7

and 8 teaches the SRM sending a ClientSessionSetUpConfirm message to the

client. As seen on Fig. 4-6, the client is sending and receiving messages from

the SRM. JERDING - Paragraph 0037 teaches that the SRM can be located at

the cable headend {digital broadcasting server}).

Consider **claim 14,** ISO/IEC 13818-6, JERDING, and Goffin teach

wherein the confirmation message for confirming the status of the client is a

ServerStatusConfirm message including: a DSM-CC (Digital Storage Media-

Command and Control) message header field, a Response field, a statusType

field, a resourceNumber field for showing a number of a resource whose status is

wanted to be known, a resourseStatus field (ISO/IEC 13818-6 - P.38-39 Section

4.2.9.4 ClientStatusResponse {ServerStatusConfirm}; P. 60-61 teaches that

resource descriptors may appear in a ClientStatusResponse

{ServerStatusConfirm} message. P.56-59 Section 4.7.1 teaches the various

fields of a resource descriptor), and the ServerStatusConfirm message is

transmitted from the client to the digital broadcasting server for confirming the

status of the client (ISO/IEC 13818-6 - "Network" referred to here refers to "SRM"

as shown in Fig. 0-1 on P.xx, since clause 4 relates to User to Network Session

Messages as stated in the contents on P. iii. P.38 Section 4.2.9.4 teaches the

client sending a ClientStatusResponse {ServerStatusConfirm} message to the

SRM. As seen on Fig. 4-21 - P.100, the client is sending and receiving

messages from the SRM. JERDING - Paragraph 0037 teaches that the SRM

can be located at the cable headend {digital broadcasting server}), but do not

explicitly teach a ClientID field.

Goffin further teaches a ClientID field (Col 3: lines 49-61, Col 4: lines 49-

51 teaches transmission of video from a headend and a data router 202 that

facilitates headend communications with the client device. Col 5: lines 34-44 and

Col 6: lines 14-24 teaches that the data router 202, receives client ID from the

client device).

Therefore, it would have been obvious to a person of ordinary skill in the

art to modify the system of ISO/IEC 13818-6, JERDING, and Goffin to include a

Client ID field, as further taught by Goffin, for the advantage of allowing the

server to easily and readily determine the source of the message.

Consider **claim 16,** ISO/IEC 13818-6, JERDING, and Goffin teach

wherein the confirmation message for confirming a session termination is a

ServerReleaseConfirm message including: a DSM-CC (Digital Storage Media-

Command and Control) message header field, a session ID field, a response

field (ISO/IEC 13818-6 - P.29-30 Section 4.2.5.4 ClientSessionReleaseResponse

{ServerReleaseConfirm}), and the ServerReleaseConfirm message is transmitted

from the client to the digital broadcasting server (ISO/IEC 13818-6 - "Network"

referred to here refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4

relates to User to Network Session Messages as stated in the contents on P. iii.

P.29-30 Section 4.2.5.4 teaches the client sending a

ClientSessionReleaseResponse {ServerReleaseConfirm} message to the SRM.

As seen on Fig. 4-20 - P.99, the client is sending and receiving messages from

the SRM. JERDING - Paragraph 0037 teaches that the SRM can be located at

the cable headend {digital broadcasting server}), but do not explicitly teach a

ClientID field.

Goffin further teaches a ClientID field (Col 3: lines 49-61, Col 4: lines 49-

51 teaches transmission of video from a headend and a data router 202 that

facilitates headend communications with the client device. Col 5: lines 34-44 and

Col 6: lines 14-24 teaches that the data router 202, receives client ID from the

client device).

Therefore, it would have been obvious to a person of ordinary skill in the

art to modify the system of ISO/IEC 13818-6, JERDING, and Goffin to include a

Client ID field, as further taught by Goffin, for the advantage of allowing the

server to easily and readily determine the source of the message.

Consider **claim 19,** ISO/IEC 13818-6, JERDING, and Goffin teach the

client directly requesting the digital broadcasting server for a session termination

and terminating a session by receiving a confirmation message for the session

termination from the digital broadcasting server (ISO/IEC 13818-6 - "Network"

referred to here refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4

relates to User to Network Session Messages as stated in the contents on P. iii.

P. 81-82 teaches a client initiating a release request. Step 1 teaches the client

directly sending a ClientSessionReleaseRequest message to the SRM for

releasing an existing session. Step 4-5 teaches receiving a

ClientSessionReleaseConfirm message from the SRM terminating the session.

JERDING - Paragraph 0037 teaches that the SRM can be located at the cable

headend {digital broadcasting server}. As seen on Fig. 4-7, the client is directly

sending and receiving messages from the SRM).

Consider **claim 20,** ISO/IEC 13818-6, JERDING, and Goffin teach the

digital broadcasting server directly requesting the client for a session termination

and terminating a session by receiving a confirmation message for the session

termination from the client (ISO/IEC 13818-6 - P. 87 – 88, step 2 teaches

sending a ClientSessionReleaseIndication to the client for releasing an existing

session. The SRM receives the ClientSessionReleaseResponse from the client

and releases all the resources assigned to the session terminating the session

for the client. As seen on Fig. 4-12, the client is directly sending and receiving

messages from the SRM. JERDING - Paragraph 0037 teaches that the SRM

can be located at the cable headend {digital broadcasting server}).

5.   **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over ISO/IEC

13818-6 (First edition 1998-09-01), in view of JERDING et al. (2006/0206913), in view

of Goffin, II (US 6,918,135), and further in view of Chapman (US 7,113,484).

Consider **claim 5,** ISO/IEC 13818-6, JERDING, and Goffin teach directly

receiving, at the client, a session termination request from the digital

broadcasting server (ISO/IEC 13818-6 - P. 99 teaches receiving a

ClientSessionReleaseIndication from the SRM for releasing session {session

termination}. As seen on Fig. 4-20, the client is directly sending and receiving

messages from the SRM. JERDING - Paragraph 0037 teaches that the SRM

can be located at the cable headend {digital broadcasting server}), and

ISO/IEC 13818-6, JERDING, and Goffin do not explicitly teach terminating

a session if the client cannot transmit a response to the session termination

request from the digital broadcasting server.

In an analogous art Chapman teaches terminating a session if the client

cannot transmit a response to the session termination request from the digital

broadcasting server (Col 11: lines 23-35 teach that if no response is received

from the cable modem {client} the resources allocated to the session is de-

allocated {terminated}).

Therefore, it would have been obvious to a person of ordinary skill in the

art to modify the system of ISO/IEC 13818-6, JERDING, and Goffin to include

terminating a session {de-allocate resources} when no response is transmitted

from the client, as taught in Chapman, for the advantage of freeing up resources

for other clients.

6.   **Claims 9, 11, and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable

over ISO/IEC.13818-6 (First edition 1998-09-01), in view of JERDING et al.

(2006/0206913), in view of Goffin, II (US 6,918,135), and further in view of Lalwaney et

al. (US 6,289,377).

Consider **claim 9**, ISO/IEC 13818-6, JERDING, and Goffin teach wherein

the message for checking the status of the client is a ServerStatusRequest

message including: a DSM-CC (Digital Storage Media-Command and Control)

message header field, a Reason field, a statusType field, a resourceNumber field

for showing a number of a resource whose status is wanted to be known, a

Reserved field (ISO/IEC 13818-6 - P.38 Section 4.2.9.2; P. 60-61 teaches that

resource descriptors may appear in a ClientStatusIndiction

{ServerStatusRequest} message. P.56-59 Section 4.7.1 teaches the various

fields of a resource descriptor), and the ServerStatusRequest message is

transmitted from the digital broadcasting server to the client (ISO/IEC 13818-6 -

"Network" referred to here refers to "SRM" as shown in Fig. 0-1 on P.xx, since

clause 4 relates to User to Network Session Messages as stated in the contents

on P. iii. P. 38 Section 4.2.9.3 teaches the SRM sending a ClientStatusIndication

{ServerStatusRequest} message to the client. As seen on Fig. 4-21 – P.100, the

SRM is sending and receiving messages from the client. JERDING - Paragraph 0037 teaches that the SRM can be located at the cable headend {digital broadcasting server}), but do not explicitly teach a ClientID field.

In an analogous art Lalwaney teaches, a Client ID field (620 - Fig.6; Col 13: lines 16-32 and Col 6: lines 50-53 teaches a packet {message} that is transmitted from the cable operator network to the client).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6 and JERDING to include a Client ID field, as taught by Lalwaney, for the advantage of easily identifying the intended destination of the data, helping to ensure that the intended client will receive the data.

Consider **claim 11,** ISO/IEC 13818-6, JERDING, and Goffin teach wherein a message for requesting a session termination is a ServerReleaseRequest message including: a DSM-CC (Digital Storage Media-Command and Control) message header field, a session ID field, a Reason field (ISO/IEC 13818-6 - P.29 Section 4.2.5.3 ClientSessionReleaseIndication {ServerReleaseRequest}), and the ServerReleaseRequest message is transmitted from the digital broadcasting server to the client (ISO/IEC 13818-6 - "Network" referred to here refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4 relates to User to Network Session Messages as stated in the contents on P. iii. P.29 Section 4.2.5.3 teaches the SRM sending a

ClientSessionReleaseIndication {ServerReleaseRequest} message to the client.

As seen on Fig. 4-20 – P.99, the SRM is sending and receiving messages from

the client. JERDING - Paragraph 0037 teaches that the SRM can be located at

the cable headend {digital broadcasting server}), but do not explicitly teach a

ClientID field.

In an analogous art Lalwaney teaches, a Client ID field (620 - Fig.6; Col

13: lines 16-32 and Col 6: lines 50-53 teaches a packet {message} that is

transmitted from the cable operator network to the client).

Therefore, it would have been obvious to a person of ordinary skill in the

art to modify the system of ISO/IEC 13818-6 and JERDING to include a Client ID

field, as taught by Lalwaney, for the advantage of easily identifying the intended

destination of the data, helping to ensure that the intended client will receive the

data.

Consider **claim 15,** ISO/IEC 13818-6, JERDING, and Goffin teach

wherein the confirmation message for confirming a session termination is a

ClientReleaseConfirm message including: a DSM-CC (Digital Storage Media-

Command and Control) message header field, a session ID field, a response

field (ISO/IEC 13818-6 - P.29 Section 4.2.5.2), and the ClientReleaseConfirm

message is transmitted from the digital broadcasting server to the client (ISO/IEC

13818-6 - "Network" referred to here refers to "SRM" as shown in Fig. 0-1 on

P.xx, since clause 4 relates to User to Network Session Messages as stated in

the contents on P. iii. P. 29 Section 4.2.5.2 teaches the SRM sending a

ClientSessionReleaseConfirm {ClientReleaseConfirm} message to the client. As

seen on Fig. 4-7 – P.81, the SRM is sending and receiving messages from the

client. JERDING - Paragraph 0037 teaches that the SRM can be located at the

cable headend {digital broadcasting server}), but do not explicitly teach a ClientID

field.

In an analogous art Lalwaney teaches, a Client ID field (620 - Fig.6; Col

13: lines 16-32 and Col 6: lines 50-53 teaches a packet {message} that is

transmitted from the cable operator network to the client).

Therefore, it would have been obvious to a person of ordinary skill in the

art to modify the system of ISO/IEC 13818-6 and JERDING to include a Client ID

field, as taught by Lalwaney, for the advantage of easily identifying the intended

destination of the data, helping to ensure that the intended client will receive the

data.

7.   **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over ISO/IEC

13818-6 (First edition 1998-09-01), in view of JERDING et al. (2006/0206913), and

further in view of Lalwaney et al. (US 6,289,377).

Consider **claim 13,** ISO/IEC 13818-6 teaches a method for controlling

network digital broadcasting service (P. xix [0. Introduction], 2nd paragraph,

Described further in detail in Clause 4), comprising steps of:

directly requesting, at a client, a SRM (Session Resource Manager) for a

session connection, and establishing a session by receiving a confirmation

message for the session connection from the SRM ("Network" referred to here

refers to "SRM" as shown in Fig. 0-1 on P.xx, since clause 4 relates to User to

Network Session Messages as stated in the contents on P. iii. P. 76 Step 1

teaches "the Client shall send ClientSessionSetUpRequest to the Network..." to

establish a new session connection. P. 78 Steps 7-8 teaches the client receiving

a ClientSessionSetUpConfirm message from the SRM establishing the session

connection. As seen on Fig. 4-6, the client is directly sending and receiving

messages from the SRM); and

directly requesting, at the client, the digital broadcasting server for a

channel change, and changing a channel by receiving a confirmation message

for confirming the channel change from the digital broadcasting server (P. 492-

495 teaches a client directly requesting a broadcast program from the SDB

Server. A SDBProgramSelectRequest is generated by the client and sent to the

SDB Server for requesting a channel change. A SDBProgramSelectConfirm

from the SDB Server is received by the client allowing the client to receive the

requested Broadcast Program),

wherein a message for requesting the channel change and the

confirmation message for confirming the channel change each include a DSM-

CC (Digital Storage Media-Command and Control) message header field (P.

492-493; Fig. H-4. protocolDiscriminator, dsmccType, messageId, transcationId,

reserved, adaptationLength, messageLength make up a DSM-CC message

header field as taught in clause 2 on p. 7, which are all present in both messages

for channel change and confirmation. P.291 Sections 10.1.2-10.2), the

confirmation message for confirming the channel change is a

ProgramSelectConfirm message including: a DSM-CC (Digital Storage Media-

Command and Control) message header field (P. 492-493; Fig. H-4.

protocolDiscriminator, dsmccType, messageId, transcationId, reserved,

adaptationLength, messageLength make up a DSM-CC message header field as

taught in clause 2 on p. 7, which are all present in both messages for channel

change and confirmation. P.291 Sections 10.1.2-10.2), a Session ID

(Identification) field, a response field, a broadcast ProgramId field, and the

ProgramSelectConfirm message is transmitted from the digital broadcasting

server to the client (Table 10-6, P.293 Section 10.2.3.2),

privateData() field contains connection information necessary for the

Client to receive the broadcast program (P.293 Section 10.2.3.2).

ISO/IEC 13818-6 does not teach that the SRM (Session Resource

Manager) can also reside at the digital broadcaster server,

the ProgramSelectRequest message includes a Client ID field.

In an analogous art JERDING teaches session setup and controlling video

distribution between server and client. JERDING also teaches a SRM (Session

Resource Manager) that resides at the digital broadcaster server (cable

headend) (Fig. 2, Paragraph 0037 teaches where both the MOD application

server 19 and the digital network control system {DNCS, SRM} are both located at the cable television headend 11).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6 to include the SRM at the cable headend, as taught by JERDING, for the advantage of providing the cable service providers with greater control and manageability over the broadcasting infrastructure.

ISO/IEC 13818-6 and JERDING teaches a ProgramSelectConfirm message (ISO/IEC 13818-6 – P.293 Section 10.2.3.2) that also contains a privateData field that contains connection information necessary for the Client to receive the broadcast program (ISO/IEC 13818-6 – P.293 Section 10.2.3.2), but do not explicitly teach the message includes a Client ID field.

In an analogous art Lalwaney teaches, a Client ID (620 - Fig.6; Col 13: lines 16-32 and Col 6: lines 50-53 teaches a packet {message} that is transmitted from the cable operator network to the client).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6 and JERDING to include a Client ID field, as taught by Lalwaney, for the advantage of easily identifying the intended destination of the data, helping to ensure that the intended client will receive the data.

8.   **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over ISO/IEC

13818-6 (First edition 1998-09-01) in view of JERDING et al. (2006/0206913), in view of

Goffin, II (US 6,918,135), and further in view of Yun (US 2007/0006254).

Consider **claim 18,** ISO/IEC 13818-6, JERDING, and Goffin teach the

client receiving a message from the digital broadcasting server for checking a

status of the client (ISO/IEC 13818-6 - P. 100 teaches receiving a

ClientStatusIndication message from the SRM for requesting {checking} a status

of the client. JERDING - Paragraph 0037 teaches that the SRM can be located

at the cable headend {digital broadcasting server}), and directly delivering a client

status confirmation message, indicative of the status of the client, to the digital

broadcasting server (ISO/IEC 13818-6 - P. 100 teaches the client sending a

ClientStatusResponse message directly to the SRM containing status data of the

client. As seen on Fig. 4-21, the client is directly sending and receiving

messages from the SRM. JERDING - Paragraph 0037 teaches that the SRM

can be located at the cable headend {digital broadcasting server}).

ISO/IEC 13818-6, JERDING, and Goffin do not explicitly teach the client

periodically receiving a message from the digital broadcasting server for

checking a status of the client.

In an analogous art Yun also teaches the client periodically receiving a

message from the digital broadcasting server for checking a status of the client

(Paragraph 0090 teaches the cable head end transmitting the command

{message} for periodically checking the operation state {status} of the set-top box

{client}. The client {POD and set-top box} periodically receives these commands are sent periodically from the server to the client side).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of ISO/IEC 13818-6, JERDING, and Goffin to have the client periodically receive messages from the digital broadcasting server for checking a status of a client, as taught by Yun, for the advantage of providing the head end {digital broadcasting server} information regarding the set-top box in realtime (Yun - Paragraph 0073) and providing the head end with a more competitive edge (Yun - Paragraph 0035 – 0036).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason K. Lin whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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01/02/2008

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